EQAX-30

TCXO with STRATUM III stability Incl. Holdover

DESCRIPTION

The Euroquartz EQAX-30 TCXO conforms to IEC60679-1, Stratum III, providing a low-noise, stable and reliable source of clock signals.

FEATURES

- **Compact, SMD package**
- **Frequency range from 10MHz to 30MHz**
- **Operating temperature range, 0° to +70°C**
- **Operable temperature -30° to +75°C**
- **Supply Voltage 3.3 Volts**

SPECIFICATION

Frequency Range:	10.0MHz to 30.0MHz
Standard Frequencies:	12.800MHz, 19.440MHz
Frequency Stability	
Initial Tolerance:	±1.0ppm @+25°C
Vs. Temperature:	±0.28ppm 0°~+50°C (Option 28)
	±0.37ppm 0°~+70°C (Option 37)
Vs. Supply Voltage Var:	±0.1ppm
Vs. Load Change:	±0.1ppm
Long Term Ageing (1st Year):	±0.8ppm (@40°C)
Long Term Stab. (15 Years):	±4.6ppm
RF Output	
Signal Waveform:	HCMOS
Load:	15pF
Rise/Fall Time:	10ns maximum
Symmetry (Duty Cycle):	60%/40%
Start-up Time:	4ms
Phase Noise (16.384MHz)	-90dBc @10Hz offset
	-120dBc @ 100Hz offset
	-140dBc @ 1kHz offset
	-145dBc @ 10kHz offset
Supply Voltage	
Minimum:	+3.13 Volts
Typical:	+3.30 Volts
Maximum:	+3.47 Volts
Current Consumption:	15mA maximum (Steady state)
Operable Temperature Range:	-30°~+75°C
Storage Temperature Range:	-40°~+85°C
Enclosure:	As drawing
Weight:	9gm
Packing Type:	Tape & Reel (IEC 60286-3)
ESD Sensitivity:	1500V minimum (IEC6100-4-2)

ORDERING CODE

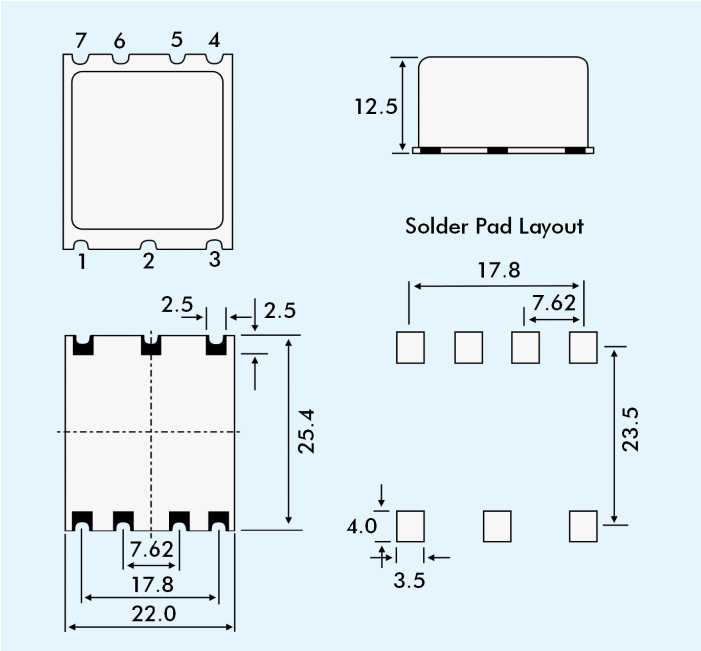
To order, specify as follows:

FREQUENCY - MODEL - OPTION

EXAMPLE: **12.800MHz EQAX-30-28**

This provides EQAX-30 at 12.800MHz with option '28' (frequency stability ±0.28ppm)

OUTLINES AND DIMENSIONS



PAD CONNECTIONS

Pad No.	Symbol	Function
1	NC	Not Connected
2	NC	Not Connected
3`	Vs	Supply Voltage
4	RF OUT	RF Output
5	NC	Not Connected
6	NC	Not Connected
7	GND	Ground

ENVIRONMENTAL

Test	IEC 60068 Part . .	IEC 61178-1 Clause . .	Test Conditions
Visual inspection, Dimensions		4.5 4.6	Enclosure styles as in IEC 60122-3, if applic.
Sealing tests	2-17	4.8.2	Gross Leak: Test Qc Fine Leak: Test Qk
Solderability, Resistance to soldering heat	2-20	4.8.3	Test Ta (235±5°C), method 1 Test Tb, method 1A, 5s
Shock	2-27	4.8.8	Test Ea, 3x per axis 100g, 6ms 1/2sine
Bump	2-29	4.8.6	Test Eb, 4000 bumps/ axis, 40g, 6ms
Free fall	2-32	4.8.9	Test Ed, procedure 1, 2 drops from 1m ht.
Vibration, Sinsoidal	2-6	4.8.7	Test Fc, 30 min/axis, 10Hz-55Hz, 0.75mm; 55Hz -2kHz, 10g
Rapid change of Temperature	2-14	4.8.5	Test Na, 10 cycles at extremes of operating temperature range.
Dry heat	2-2	4.8.11	Test Ba, 16 h at upper temperature.
Damp heat, cyclic	2-30	4.8.12	Test Db variant 1 severity b, 55°C/95%rh
Cold	2-1	4.8.13	Test Aa, 2h at lower temperature indicated by climatic category.
Climatic sequence	1-7	4.8.14	Sequence of 4.8.11, 4.8.12 and 4.8.13
Damp heat, steady state	2-3	4.8.15	Test Ca, 56 days
Endurance tests, - ageing - extended ageing		 4.9.1 4.9.2	 30 days @ 85°C 1kh, 2kh, 8kh, @85°C

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